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EXAMINER

CADUGAN, ERICA E

ART UNIT PAPER NUMBER

3722

DATE MAILED: 01/29/2004

1/8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/851,849

Applicant(s)

DAVID ET AL. *CA*

Examiner

Erica E Cadugan

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-- ~~THE MAILING DATE~~ of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/22/03 & the interview of 1/27/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 17.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This non-final action is being sent in response to Applicant's argument during the interview of January 27, 2004 that neither the Glover nor Hunt reference teaches that the fasteners extend all the way "through" the workpiece. Prosecution was already reopened in the office action mailed 12/16/2003 in view of the appeal brief filed on 9/22/2003. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

It is noted that Applicant's appeal brief set forth the persuasive argument that Dunlap teaches away from replacing the clamping device taught by Dunlap with the "mounting bolts drilled through the workpiece" taught by Woods since Dunlap specifically teaches that "the entire construction including the tools therefore may be quickly removed from the workpiece and without damage thereto" (col. 2, lines 22-27).

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the fasteners that are drilled

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“through” the workpiece as set forth in all the independent claims must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. While it is noted that the drawings do show fasteners that are used to affix the guide track to the workpiece, it is also noted that the drawings do not show the feature, asserted to be distinguishing from the prior art, of the fasteners extending “through” the workpiece.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the specification does not provide antecedent basis for the claimed feature of fasteners that are drilled “through” the workpiece as claimed and argued by Applicant.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 12, 15-17, and 20-21 is rejected under 35 U.S.C. 103(a) as being obvious over U.S. Pat. No. 5,533,845 (Glover)

Glover teaches a portable milling machine, the spindle of which is considered a “router”, having a milling bit 61 secured to a chuck 53 (col. 4, lines 9-15, Figure 1). The bit 61 is

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ultimately attached to a frame 12, considered the claimed “platform”, which frame 12 is moved in the generally left/right direction shown in the top portion of Figure 1 along a “guide” track, located within subframe 30, via the turning of alignment wheel 19 (Figures 1, 5, and 6, also col. 3, lines 44-50, for example). Note that the subframe or “guide” 30 is affixed to the workpiece 10 via fasteners “drilled” into the workpiece (see Figures 1, 5, and col. 3, lines 32-43). Additionally, regarding the “vertical adjustment”, it is noted that alignment wheel 18 is mounted on the “platform” 12 for moving the “platform” and tool “vertically” as viewed in Figure 1 (see also col. 3, lines 44-59, for example).

Regarding claim 15, note that Glover specifically teaches that the tool is pneumatically operated (col. 4, lines 24-32).

Regarding claim 16, Glover specifically teaches a “speed adjustment” (col. 4, lines 58-60).

Specifically regarding claim 20, note that platform 12 has a protruding member that mates with the aforescribed “guide” track of the subframe 30 (see Figure 5, for example), which protruding member “bears” against and interfaces with said “guide” track.

Regarding claim 21, see Figure 1 and col. 4, lines 16-32, for example.

However, while Glover does teach the fasteners that penetrate into the workpiece as described above, Glover is silent about whether the fasteners are drilled all the way “through” the workpiece (noting that the Merriam Webster’s Collegiate Dictionary, 10th ed., defines “through” as “extending from one surface to another”).

However, it is noted that Glover’s device is able to be used with a variety of different workpieces (note that col. 3, lines 25-29, for example set forth a “selected workpiece” and then

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provide an example of such). It is further noted that 1) it does not appear to matter to the function of Glover's device whether or not the fasteners extend all the way through the workpiece as long as they perform the salient attaching function, 2) that whether or not the fasteners extend all the way "through" the workpiece does not appear to affect the function of the present invention, so long the fasteners perform the salient attaching function, and that 3) whether or not the fasteners extend all the way "through" the workpiece appears to be dependent on the design factor of the length of the fasteners selected as well as on the particular workpiece used, i.e., if a workpiece is used that has a thickness less than the length of the fasteners selected by the designer of Glover's device, then the fasteners will extend all the way "through" the device, and it is again noted that Glover's device is usable with a variety of workpieces as described above.

Therefore, at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to have used whatever length of fasteners with Glover's device as was desired or expedient on whatever thickness of workpiece as was desired or expedient (thus providing some circumstances where the fasteners extend "through" the workpiece) because Applicant has not disclosed that having the fasteners extend "through" the workpiece provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with fasteners that don't extend all the way through the workpiece because the actual fact that the fasteners extend all the way through the workpiece, per se, does not appear affect the

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function of Applicant's invention so long as the fasteners perform the salient function of attaching the guide to the workpiece (which Glover's fasteners do).

Therefore, it would have been an obvious matter of design choice to have modified Glover to have obtained the invention as specified in the claims.

6. Claims 12, 17, and 20 are rejected under 35 U.S.C. 103(a) as being obvious over 5,106,243 (Hunt).

Hunt teaches a portable milling machine, the spindle unit 44 of which is considered a "router". Note that the spindle unit 44 is affixed to a movable ram or "platform" 26, for example (see Figure 1), that moves along a dovetail slide 18 of a bed 12 (Figure 1, col. 2, lines 26-65, for example). The device has a "vertical adjustment" for adjusting the depth of cut of the milling cutter 68 (col. 3, lines 25-29, for example). Additionally, note that the bed plate 10 of the guiding device previously described is bolted to a workpiece surface (see col. 4, lines 18-22 and Figure 1), and thus Hunt teaches the guiding device that is fastened to the workpiece via fasteners or bolts that penetrate the workpiece surface.

Regarding claim 20, note that carriage block 24 serves as a "bearing" as claimed (see Figure 1, for example).

However, while Hunt does teach the fasteners that penetrate into the workpiece as described above, Hunt is silent about whether the fasteners are drilled all the way "through" the workpiece (noting that the Merriam Webster's Collegiate Dictionary, 10th ed., defines "through" as "extending from one surface to another").

However, it is noted that Hunt's device is able to be used with a variety of different workpieces and that Hunt does not limit the use of the device to a particular type of workpiece.

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It is further noted that 1) it does not appear to matter to the function of Hunt's device whether or not the fasteners extend all the way through the workpiece as long as they perform the salient attaching function, 2) that whether or not the fasteners extend all the way "through" the workpiece does not appear to affect the function of the present invention, so long the fasteners perform the salient attaching function, and that 3) whether or not the fasteners extend all the way "through" the workpiece appears to be dependent on the design factor of the length of the fasteners selected as well as on the particular workpiece used, i.e., if a workpiece is used that has a thickness less than the length of the fasteners selected by the designer of Hunt's device (for example, a thickness less than the press platen 100 shown in Figure 6), then the fasteners will extend all the way "through" the device, and it is again noted that Hunt's device is usable with a variety of workpieces as described above.

Therefore, at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to have used whatever length of fasteners with Hunt's device as was desired or expedient on whatever thickness of workpiece as was desired or expedient (thus providing some circumstances where the fasteners extend "through" the workpiece) because Applicant has not disclosed that having the fasteners extend "through" the workpiece provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with fasteners that don't extend all the way through the workpiece because the actual fact that the fasteners extend all the way through the workpiece, per se, does not appear affect the

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function of Applicant's invention so long as the fasteners perform the salient function of attaching the guide to the workpiece (which Hunt's fasteners do).

Therefore, it would have been an obvious matter of design choice to have modified Hunt to have obtained the invention as specified in the claims.

7. Claims 13 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over either of Glover or Hunt as applied to claim 12 above.

Glover and Hunt each teaches all aspects of the claimed invention as described in the above rejection based thereon. However, regarding claim 13, both Glover and Hunt are silent about the degree of precision of the vertical adjustment. Additionally, regarding claim 19, both Glover and Hunt are silent about the material used for the guide.

Regarding the degree of precision of the vertical adjustment, it is noted that it is conventional and well-known in the machining art to utilize an "adjustment" having whatever degree of precision is required for machining a particular desired workpiece, depending on manufacturing tolerances of the workpiece, and a degree of precision within "one-thousandth of an inch" as claimed is also commonly applied. Therefore, at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to have made the vertical adjustments of either or both of Glover and/or Hunt the particular precision claimed because Applicant has not disclosed that utilizing the particular claimed precision provides an advantage, is used for a particular purpose, or solves a stated problem (note, for example, that Applicant in fact discloses that other precisions can be used, see page 9, for example).

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Regarding the particular material for the guide, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have used whatever known material as was desired or expedient, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. See also Ballas Liquidating Co. v. Allied industries of Kansas, Inc. (DC Kans) 205 USPQ 331.

8. Claim 18, and alternatively, claim 17, is/are rejected under 35 U.S.C. 103(a) as being unpatentable over either of Glover or Hunt as applied to claims 12 or to claims 12 and 17 above, and further in view of U.S. Pat. No. 3,133,339 (Ribich).

Either of Glover or Hunt teaches all aspects of the claimed invention as described in the above rejection based thereon.

Specifically regarding Glover, Glover is silent as to the specifics of the cutting tool, specifically teaching the “conventional cutting or milling bit 61” may “adopt a variety of configurations and be manufactured from a variety of materials depending on the nature of the workpiece 10” (see col. 4, lines 9-15, for example). Glover is silent about the diameter of the cutting tool, and about the number of flutes of the cutting tool. Additionally, while the cutting tool taught by Glover appears to be an end mill, Glover does not explicitly call it such, other than to say that the tool is a “conventional milling bit” as just described.

Additionally, regarding Hunt, likewise, Hunt generically teaches the use of a “milling cutter 68” (col. 4, line 27, for example) that appears to be an end mill, and is so considered since the device is used to make longitudinal cuts as described in columns 3 and 4, although Hunt does not explicitly call the tool such.

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Ribich teaches an end mill (see col. 1, lines 8-10 and Figures 1-2, for example) having three flutes 15-17 (see Figures 1-2) and having a quarter-inch diameter (see the table located at col. 3, lines 40-50 and also see col. 4, lines 15-18, for example). Additionally, Ribich provides a teaching that the particular end mill shown in Figures 1-2 is of a configuration that gives a longer tool life than other end mills having differently configured cutting edges (col. 2, lines 7-9, for example, also see generally column 1).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have substituted the specific quarter-inch three-fluted end mill taught by Ribich for the generic milling cutter taught by either of Glover or Hunt for the purpose of providing a cutter capable of producing either continuous or discontinuous chips, as desired, thereby providing a cutter that has a longer life (col. 1-2, specifically col. 2, lines 7-9 of Ribich).

9. Claims 1-5, 7-11, 14, and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glover as applied to claims 12-13, and 15-21 above, and further in view of either of U.S. Pat. No. 5,503,203 (Stornetta) or U.S. Pat. No. 3,837,383 (Ko), for example.

Glover teaches all aspects of the claimed invention as described in the above rejection based thereon. Additionally, regarding the "grips" of claim 7, note that there are many areas/structures on Glover's device that can be considered the claimed "grips". For example, the alignment wheels 18 and 19 each have a gripping handle protruding therefrom, see Figure 6, for example.

However, while Glover does teach the fasteners that penetrate into the workpiece as described above, Glover is silent about whether the fasteners are drilled all the way "through" the workpiece (noting that the Merriam Webster's Collegiate Dictionary, 10th ed., defines "through"

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as "extending from one surface to another"). Also, Glover does not teach a vacuum fitting for removing the machined debris. Additionally, regarding claim 2, Glover is silent about the degree of precision of the vertical adjustment. Additionally, regarding claims 8-9, Glover is silent about the material used for the guide.

However, regarding the fasteners extending "through" the workpiece, it is noted that Glover's device is able to be used with a variety of different workpieces (note that col. 3, lines 25-29, for example set forth a "selected workpiece" and then provide an example of such). It is further noted that 1) it does not appear to matter to the function of Glover's device whether or not the fasteners extend all the way through the workpiece as long as they perform the salient attaching function, 2) that whether or not the fasteners extend all the way "through" the workpiece does not appear to affect the function of the present invention, so long the fasteners perform the salient attaching function, and that 3) whether or not the fasteners extend all the way "through" the workpiece appears to be dependent on the design factor of the length of the fasteners selected as well as on the particular workpiece used, i.e., if a workpiece is used that has a thickness less than the length of the fasteners selected by the designer of Glover's device, then the fasteners will extend all the way "through" the device, and it is again noted that Glover's device is usable with a variety of workpieces as described above.

Therefore, at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to have used whatever length of fasteners with Glover's device as was desired or expedient on whatever thickness of workpiece as was desired or expedient (thus providing some circumstances where the fasteners extend "through" the workpiece) because Applicant has not disclosed

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that having the fasteners extend "through" the workpiece provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with fasteners that don't extend all the way through the workpiece because the actual fact that the fasteners extend all the way through the workpiece, per se, does not appear affect the function of Applicant's invention so long as the fasteners perform the salient function of attaching the guide to the workpiece (which Glover's fasteners do).

Therefore, it would have been an obvious matter of design choice to have modified Glover to have obtained the invention as specified in the claims.

However, regarding the vacuum fitting, use of a "vacuum fitting" for collecting machining debris is well-known in the machine tool art as taught by Stornetta wherein a router (including motor 51, base 53, and bit 52, see Figure 2, for example) has a vacuum attachment wherein a vacuum hose is coupled to the dust hood 55 (col. 4, line 56 through col. 5, line 3, for example).

Alternatively, Ko also teaches a "vacuum fitting", including dust collector housing 21, connected to a machining device (see Figures 1-2 and col. 3, lines 20-37) such that dust or work particles will be removed from tubular element 45 via suction hose 47 (col. 4, lines 34-40). Ko teaches that such a vacuum fitting is desirable so as to protect the health of the operator of the machine and other nearby workers, as well as to increase operator safety and improve machine operation (see col. 1, lines 1-34, for example).

Therefore, the use of such attachment (as that taught by either of Stornetta or Ko) in the device of Glover would be obvious to one possessing ordinary skill in the art to achieve the

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benefits that would accrue thereto as set forth in both Stornetta and Ko (see Stornetta, col. 6, lines 9-16, for example, and Ko, col. 1, lines 1-34, for example) such as reduced hazard to the operator.

Regarding the degree of precision of the vertical adjustment, it is noted that it is conventional and well-known in the machining art to utilize an "adjustment" having whatever degree of precision is required for machining a particular desired workpiece, depending on manufacturing tolerances of the workpiece, and a degree of precision within "one-thousandth of an inch" as claimed is also commonly applied. Therefore, at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to have made the vertical adjustment of Glover the particular precision claimed because Applicant has not disclosed that utilizing the particular claimed precision provides an advantage, is used for a particular purpose, or solves a stated problem (note, for example, that Applicant in fact discloses that other precisions can be used, see page 9, for example).

Regarding the particular material for the guide, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have used whatever known material as was desired or expedient, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. See also Ballas Liquidating Co. v. Allied industries of Kansas, Inc. (DC Kans) 205 USPQ 331.

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10. Claim 6 and alternatively claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Glover in view of either Stornetta or Ko as applied to claim 6 above, and further in view of Ribich.

Glover in view of either Stornetta or Ko teaches all aspects of the claimed invention as described in the above rejection based thereon.

Glover is silent as to the specifics of the cutting tool, only specifically teaching the “conventional cutting or milling bit 61” may “adopt a variety of configurations and be manufactured from a variety of materials depending on the nature of the workpiece 10” (see col. 4, lines 9-15, for example). Glover is silent about the diameter of the cutting tool, and about the number of flutes of the cutting tool. Additionally, while the cutting tool taught by Glover appears to be an end mill, Glover does not explicitly call it such, other than to say that the tool is a “conventional milling bit” as just described.

Ribich teaches an end mill (see col. 1, lines 8-10 and Figures 1-2, for example) having three flutes 15-17 (see Figures 1-2) and having a quarter-inch diameter (see the table located at col. 3, lines 40-50 and also see col. 4, lines 15-18, for example). Additionally, Ribich provides a teaching that the particular end mill shown in Figures 1-2 is of a configuration that gives a longer tool life than other end mills having differently configured cutting edges (col. 2, lines 7-9, for example, also see generally column 1).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have substituted the specific quarter-inch three-fluted end mill taught by Ribich for the generic milling cutter taught by Glover in view of either Stornetta or Ko for the purpose of providing a cutter capable of producing either continuous or discontinuous chips, as

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desired, thereby providing a cutter that has a longer life (col. 1-2, specifically col. 2, lines 7-9 of Ribich).

Response to Arguments

11. Applicant's arguments filed September 22, 2003, with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

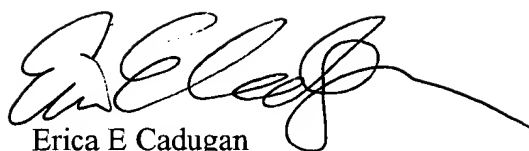
Faxing of Responses to Office Actions and Contact Information

12. In order to reduce pendency and avoid potential delays, TC 3700 is encouraging FAXing of responses to Office Actions directly into the Group at (703) 872-9306. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into TC 3700 will be promptly forwarded to the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erica Cadugan whose telephone number is (703) 308-6395. The examiner can normally be reached on Monday through Thursday from 7:30 a.m. to 5:00 p.m., and every other Friday from 7:30 a.m. to 4:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A.L. Wellington can be reached at (703) 308-2159. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 3700 receptionist whose telephone number is (703) 308-

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1148.

A handwritten signature in black ink, appearing to read 'Erica E Cadugan', with a long horizontal flourish extending to the right.

Erica E Cadugan
Patent Examiner
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eec

January 27, 2004